

# SLxRF MODULATOR



## OWNER'S MANUAL

PLEASE READ BEFORE USE



### Important safety precautions

- To prevent electrical fire or shock hazard, do not expose this device to rain or moisture. Do not use near a bath, washbowl, kitchen sink, laundry or any area where the SLxRF modulator could come into contact with moisture or water.
- To avoid electrical shock, do not open this device. There are no user serviceable parts inside. Opening the device will invalidate the warranty. Refer to qualified repair personnel only.
- The SLxRF modulator is for use with a UK 230VAC 50Hz mains power supply only.
- Always be aware of electrical safety: never overload a mains socket or extension with too many devices drawing excessive current. Doing so increases the risk of fire and electrical shocks.

**Changes or modifications made to the device  
invalidate the product warranty & approvals**

### A. Introducing the SLxRF modulator

The Philex SLxRF modulator allows you to:

- Watch 'Free-to-Air' digital satellite TV on a TV that does not have a spare Scart/Phono connection, using the existing coaxial input
- Watch digital satellite receivers, DVDs or any AV device without an internal modulator on a TV that does not have a spare Scart/Phono connection, using the existing coaxial input
- Distribute the signal from any audio-visual device (digital satellite TV, DVD etc.) to all TVs in your home

## B. Setting the output frequency

The SLxRF modulator works by using an unused UHF channel on your TV to show the signal from your AV equipment. On your TV, each terrestrial TV channel occupies a UHF frequency. In the UK, a typical example of the frequencies used for each channel are:

TV channel	UHF channel	UHF frequency (MHz)
ITV1	23	487.25
BBC1	26	511.25
Channel 4	30	543.25
BBC2	33	567.25
Channel 5	36	591.25

For the SLxRF modulator to work, it must be set to use a UHF channel that is not already used by a TV channel, or the VCR if it is connected to your TV by a RF flylead (the coaxial input).

On the rear of the SLxRF modulator is a 8-way DIP switch (just below 'CHANNEL SETTING'). By selecting the OFF (up) or ON (down) position of each of the 8 switches, you can choose any UHF channel between 21 and 69 (471.25 to 855.25MHz) for the the SLxRF modulator to display the desired AV signal.

To avoid interference between channels, there must be a *3-channel UHF spacing* between each channel. E.g. do not set up your DVD player on channel 40 and your satellite on channel 41. The following settings are suggested as a guide :

AV equipment	UHF channel	UHF frequency (MHz)
VCR player	39	615.25
Satellite box	42	639.25
DVD player	45	663.25

Contact your local TV station to check what UHF channels are used in your area.

## B. Setting the output frequency (continued)



**OFF**  
=  
'0' position

**ON**  
=  
'1' position

UHF channel	UHF frequency (MHz)	Switch 1	Switch 2	Switch 3	Switch 4	Switch 5	Switch 6	Switch 7	Switch 8	TEST
21	471.25	0	0	0	0	0	0	0		TEST
22	479.25	0	0	0	0	0	0	1		TEST
23	487.25	0	0	0	0	1	0			TEST
24	495.25	0	0	0	0	0	1	1		TEST
25	503.25	0	0	0	1	0	0			TEST
26	511.25	0	0	0	1	0	1			TEST
27	519.25	0	0	0	1	1	0			TEST
28	527.25	0	0	0	1	1	1			TEST
29	535.25	0	0	1	0	0	0			TEST
30	543.25	0	0	1	0	0	1			TEST
31	551.25	0	0	1	0	1	0			TEST
32	559.25	0	0	1	0	1	1			TEST
33	567.25	0	0	1	1	0	0			TEST
34	575.25	0	0	1	1	0	1			TEST
35	583.25	0	0	1	1	1	0			TEST
36	591.25	0	0	1	1	1	1			TEST
37	599.25	0	1	0	0	0	0			TEST
38	607.25	0	1	0	0	0	1			TEST
39	615.25	0	1	0	0	1	0			TEST
40	623.25	0	1	0	0	1	1			TEST

UHF channel	UHF frequency (MHz)	Switch 1	Switch 2	Switch 3	Switch 4	Switch 5	Switch 6	Switch 7	Switch 8
41	631.25	0	1	0	1	0	0		TEST
42	639.25	0	1	0	1	0	1		TEST
43	647.25	0	1	0	1	1	0		TEST
44	655.25	0	1	0	1	1	1		TEST
45	663.25	0	1	1	0	0	0		TEST
46	671.25	0	1	1	0	0	1		TEST
47	679.25	0	1	1	0	1	0		TEST
48	687.25	0	1	1	0	1	1		TEST
49	695.25	0	1	1	1	0	0		TEST
50	703.25	0	1	1	1	0	1		TEST
51	711.25	0	1	1	1	1	0		TEST
52	719.25	0	1	1	1	1	1		TEST
53	727.25	1	0	0	0	0	0		TEST
54	735.25	1	0	0	0	0	1		TEST
55	743.25	1	0	0	0	1	0		TEST
56	751.25	1	0	0	0	1	1		TEST
57	759.25	1	0	0	1	0	0		TEST
58	767.25	1	0	0	1	0	1		TEST
59	775.25	1	0	0	1	1	0		TEST
60	783.25	1	0	0	1	1	1		TEST
61	791.25	1	0	1	0	0	0		TEST
62	799.25	1	0	1	0	0	1		TEST
63	807.25	1	0	1	0	1	0		TEST
64	815.25	1	0	1	0	1	1		TEST
65	823.25	1	0	1	1	0	0		TEST
66	831.25	1	0	1	1	0	1		TEST
67	839.25	1	0	1	1	1	0		TEST
68	847.25	1	0	1	1	1	1		TEST
69	855.25	1	1	0	0	0	0		TEST

## C. Setting the output frequency (continued)

Please note: when selecting the UHF output frequency, notice that **Switch 7** is not used. **Switch 8** is used to turn the SLxRF modulator's **test signal** on and off. When tuning and programming the SLxRF modulator's channel into your TV, the test signal will show if your TV is correctly tuned in. If it is correctly tuned in, a black screen with two white stripes will show on your TV:



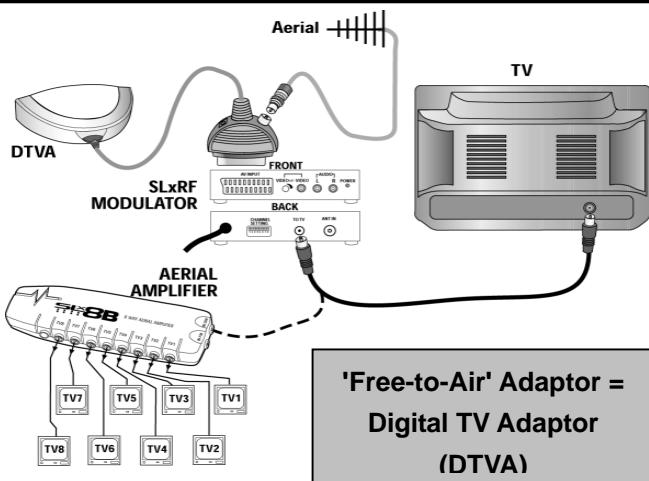
## D. Connecting your SLxRF modulator

Depending on what AV equipment you have and how you wish to view it, there are many different ways of connecting your equipment to the SLxRF modulator and the modulator to your TV. The most typical examples are shown here.

You are not limited to using a single SLxRF modulator - modulators can be connected in series so you can connect multiple pieces of equipment to your TV.

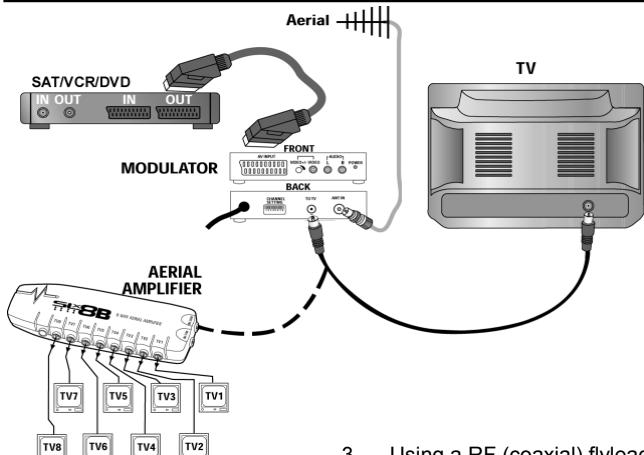
If you are in any doubt, contact our **Customer CareLine** (08457 573 479) or **e-mail** [technical@philex.com](mailto:technical@philex.com).

## C1. Connecting 'Free-to-Air' Digital Satellite



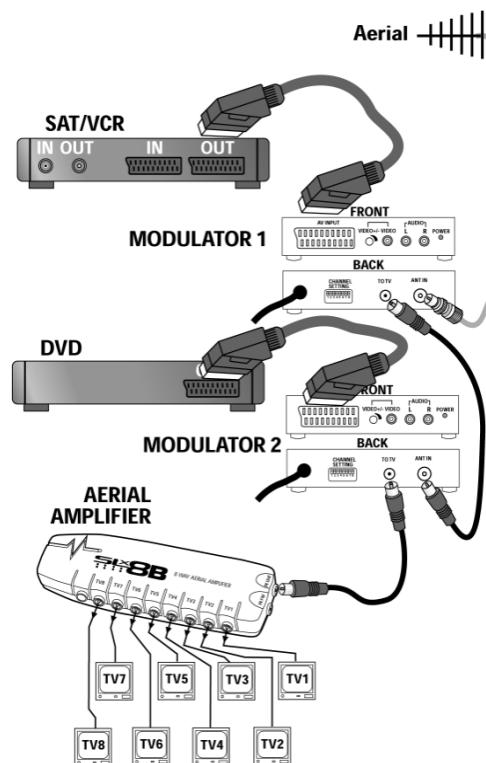
1. Plug the aerial into the coaxial socket of your Free-to-Air Adaptor's (DTVA) Scart connector.
2. Plug the DTVA's Scart adaptor into the Scart AV input on the front of the SLxRF modulator.
3. Using a RF (coaxial) flylead, connect the 'TO TV' socket on the back of the SLxRF modulator to your TV's coaxial input
4. Alternatively, you can distribute the 'Free-to-Air' transmission to other TVs in your home by plugging the RF flylead into an aerial amplifier (such as Philex's SLx/SLxB range).

## C2. Connecting Satellite, Video or DVD



1. Plug your aerial into the ANT IN socket at the back of the SLxRF modulator.
2. Using a Scart to Scart lead, connect the AV OUTPUT socket of your Satellite/VCR/DVD player to the AV INPUT at the front of the SLx RF modulator.
3. Using a RF (coaxial) flylead, connect the 'TO TV' socket on the back of the SLxRF modulator to your TV's coaxial input.

## C3. Connecting multiple SLxRF modulators



1. Ensure that each SLxRF modulator is set to a different UHF channel.
2. Shown is how to connect a Satellite, VCR and DVD player.
3. Plug your aerial into the ANT IN socket at the back of the **first** SLxRF modulator.
4. Using a Scart to Scart lead, connect the AV OUTPUT socket of your Satellite/VCR player to the AV INPUT at the front of the **first** SLx RF modulator
5. Using a RF (coaxial) flylead, connect the 'TO TV' socket on the back of the **first** SLxRF modulator to your ANT IN socket of the **second** SLxRF modulator.
6. Using a Scart to Scart lead, connect your DVD's AV output to the AV INPUT socket at the front of the **second** SLxRF modulator.

### Connection tips

The SLxRF modulator is not limited to using Scart connections. Video and stereo audio signals can be connected to it using the 3 Phono (or RCA) sockets at the front of the modulator. Each is colour coded for the correct signal:

YELLOW - VIDEO INPUT    RED - RIGHT AUDIO INPUT    WHITE - LEFT AUDIO INPUT

Scart and Phono connections cannot be used at the same time.

## D. Troubleshooting

Problem	Possible cause and action
No picture	<ul style="list-style-type: none"> <li><b>No power</b> - check mains in on and Power indicator on front of modulator is illuminated.</li> <li><b>Tuned to wrong UHF channel</b> - check 8-way DIP switch is set correctly</li> <li><b>No video input</b> - check connections between modulator and AV source</li> </ul>
Poor picture contrast	<ul style="list-style-type: none"> <li><b>Incorrect video level</b> - adjust the <b>level</b> by turning the <b>VIDEO +/- control</b> at the front of the modulator with a small screwdriver</li> </ul>
Blurred picture	<ul style="list-style-type: none"> <li><b>Interference from TV station</b> - adjust the 8-way DIP switch so that there is a greater gap between UHF channel output of the modulator and the TV station.</li> </ul>
No sound or poor quality sound	<ul style="list-style-type: none"> <li><b>Poor audio connection</b> - check connections between modulator and AV source</li> </ul>

If you are still experiencing problems, please contact our Customer CareLine on 08457 573 479 Monday to Friday, 8am to 6pm. Alternatively, e-mail [technical@philex.com](mailto:technical@philex.com) or visit <http://technical.philex.com>.



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## E. Technical Specifications

System	PAL I
ANT TO TV	40~1000MHz:-2~+4dB
ANT/TV Port	IEC169-2(f)/IEC169-2(m)
RF Output	470~860MHz Adj. (CH 21-69 Adj.)
RF Output Level	70dB $\mu$ V (Picture Carrier)
Audio Sub-carrier	6.0MHz
Audio Carrier O/P Level Compare to Video Carrier	-15dB
Audio/Video Input Port	Phono jack or Scart
Video Input Level	Adjustable, Recommend 1Vpp
Video Input Impedance	75 $\Omega$
Audio Input Level	Recommend 1Vpp
Audio Input Impedance	13K $\Omega$
Power Supply	240VAC or 230VAC or 220VAC, 50Hz

**SLXRF**  
**MODULATOR**

Part of the range of Philex SLx Aerial Accessories